Innovation Saskatchewan

Annual Report for 2016-17

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Government of Saskatchewan

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Letter of Transmittal and Message from the Board Chair

Her Honour, the Honourable Vaughn Solomon Schofield, Lieutenant Governor of Saskatchewan

May it Please Your Honour:

Formed in 2009, Innovation Saskatchewan works to advance the Government of Saskatchewan's innovation agenda—developing an environment in the province that encourages and rewards innovation. The provincial government agency provides recommendation and advice on research, development, science and technology. It also works collaboratively with industry and stakeholders to encourage the commercialization of technology and increased competitiveness.

The Government of Saskatchewan is committed to increased accountability, responsibility managed expenditiures, and to securing a better quality of life for Saskatchewan people.

The *Saskatchewan Plan for Growth* notes that our province's future economic success will increasingly depend on knowledge and innovation. To facilitate this success, in the 2016-17 fiscal year, Innovation Saskatchewan executed a number of programs and initiatives and provided millions of dollars in funding to our various sectors of focus including oil and gas, mining, agriculture, clean resources, health and global food security. Institutions and agencies supported include the Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac), the Canadian Light Source, the Sylvia Fedoruk Canadian Centre for Nuclear Innovation and the Saskatchewan Health Research Foundation.

These investments are paying off. For example, in the past year, we have seen Saskatchewan breakthroughs into Zika virus research, as well as advancements in heavy oil research and in hydrocarbon bioremediation.

Saskatchewan is home to some of the most advanced research technologies in the world, and we continue to lead in system-wide thinking about how to improve the quality of life for Saskatchewan people and the world at large. Innovation Saskatchewan will continue to support and facilitate research and development that is important to the province's growth and necessary for this improved quality of life.

By doing this, we are placing Saskatchewan on the global map, providing useful knowledge that is transferable across the world. More importantly, we are making a difference and helping to advance innovation to build a stronger Saskatchewan.

On behalf of Innovation Saskatchewan and its board of directors, I have the honour to submit herewith the Annual Report of Innovation Saskatchewan, together with the financial statements, for the fiscal year ending March 31, 2017.

The Honourable Jeremy Harrison
Minister Responsible for Innovation
Chair of the Innovation Saskatchewan Board of Directors

Letter of Transmittal from the CEO

The Honourable Jeremy Harrison, Minister Responsible for Innovation

Dear Minister:

I have the honour of submitting the Annual Report of Innovation Saskatchewan for the fiscal year ending March 31, 2017. This report has been prepared and carefully reviewed under my direction, and accurately represents the activities and accomplishments of our agency during the past year.

Wes Jickling
Chief Executive Officer
Innovation Saskatchewan

Introduction

This annual report for Innovation Saskatchewan (IS) presents the agency's results for the fiscal year ending March 31, 2017. It demonstrates the agency's commitment to effective public performance reporting, transparency and accountability.

IS's activities in 2016-17 align with the Government of Saskatchewan's vision "...to be the best place in Canada – to live, to start a business, to get an education, to raise a family, and to build a life," as well as its four goals:

- Sustaining growth and opportunities for Saskatchewan people;
- Meeting the challenges of growth;
- Securing a better quality of life for all Saskatchewan people; and
- Delivering a responsive and responsible government.

Together, all ministries and agencies support the achievement of these goals and work towards a secure and prosperous Saskatchewan.

Agency Overview

Innovation Saskatchewan (IS) is the Government of Saskatchewan's special operating agency responsible for implementing the province's innovation priorities. Its primary responsibilities are to:

- Manage and administer the government's research funding contracts with the province's post-secondary institutions and research organizations;
- Support the growing advanced technology sector in Saskatchewan;
- Provide recommendations and advise the provincial government regarding its policies and direction in the areas of research and development, science and technology; and
- Engage with industry, researchers, universities, entrepreneurs and other government ministries to co-ordinate and promote economic growth through innovation and commercialization of new technologies.

Located at the Innovation Place research park in Saskatoon, IS works to produce social and economic benefit for the people of Saskatchewan through innovation. Through *The Innovation Saskatchewan Act* proclaimed on November 2, 2009, the role of IS is to:

- Facilitate the co-ordination and strategic direction of the Government of Saskatchewan's support for research and development, and science and technology—with the objective of fostering the development of new ideas, products and processes to ensure the long-term sustainable growth of Saskatchewan's economy;
- Provide advice and guidance to the Government of Saskatchewan in respect to its science and technology policy, and to establish, measure, monitor and report on the Government of Saskatchewan's strategies and goals for advancing innovation in Saskatchewan;
- Co-ordinate and support the establishment and maintenance of science, research and development infrastructure in Saskatchewan;
- Provide recommendations and advice to the Government of Saskatchewan in respect to research, development, demonstration and the commercialization of new technologies and innovative processes in Saskatchewan, including policies that may better co-ordinate, support, foster, promote and facilitate research, development, demonstration and the commercialization of technology;
- Undertake any program or activity, on request of the Lieutenant Governor in Council, for the purposes of achieving the objectives described above; and
- Undertake any other prescribed programs and activities.

Board of Directors

IS is led by a board of directors with years of experience in innovation. They have diverse backgrounds in industrial sectors of importance to Saskatchewan, and offer a breadth of Canadian perspectives. The board provides leadership and strategic direction to the agency.

Some of the key responsibilities of the board include:

- Supervision of the Chief Executive Officer (CEO) in managing the affairs of IS;
- Reviewing and approving IS's annual budget; and
- Reviewing and approving projects seeking funding through designated IS funds.

The members of the IS Board of Directors for 2016-17 were:

Honourable Jeremy Harrison (Chair)
Minister Responsible for Innovation

Honourable Dustin Duncan (Vice-Chair)
Minister of Energy and Resources

Mr. Daniel Halyk
President and CEO, Total Energy Services Ltd. , Calgary, AB

Mr. Trevor Thiessen
President, Redekop Manufacturing, Saskatoon, SK

Ms. Pam Haidenger-Bains
Consultant, Saskatoon, SK

Mr. Warren Steinley
MLA, Regina Walsh Acres, Regina, SK

Dr. Don Somers
Consultant, Saskatoon, SK

The 2016-17 Innovation Saskatchewan Team

Wes Jickling
Chief Executive Officer

Jerome Konecsni
Senior Advisor

Kari Harvey
Chief Operating Officer

David Grier
Chief Strategist

David Katz
Chief Science & Policy Officer

Rita Flaman Jarrett
Director of Corporate Services, Corporate Secretary

Danya Kordan
Senior Strategist

Andy Melnyk
Senior Strategist

Jordan Dutchak
Startups & Commercialization Specialist

Kevin Chung
Analyst

Kristina Rissling
Analyst

Sheri Merasty
Executive Assistant

Cortney Blakeney
Executive Assistant

Mission Statement

IS's mission is to be an innovation catalyst serving the needs of individuals, companies and institutions. IS strives to encourage the existence of a sustainable, globally competitive business environment in the province by complementing the efforts of the provincial private sector and providing needed support to early research and development (R&D) and commercialization endeavours in Saskatchewan.

Vision

Saskatchewan will be among the leading jurisdictions in its capacity and ability to innovate.

Strategic Goals

IS is committed to achieving two strategic goals, detailed below:

Goal 1: Ensure research being done at IS-funded institutes is creating economic impact, a return on investment, and is aligned with Saskatchewan's research and development priorities.

- Encourage increased industry engagement and industry-driven research and development projects;
- Increase communications and collaboration between research institutes;
- Advocate for increased funding levels from the Government of Canada and other sources for IS-funded research institutes;
- Encourage and support commercialization of innovative new technologies; and
- Communicate the value of research to the Saskatchewan public.

Goal 2: Help build and support a community of prolific, diverse and successful technology entrepreneurs and startups.

- Recruit technology startups and entrepreneurs–within and outside of Saskatchewan–to build successful technology companies in the province;
- Establish links and research and development collaborations between industry, entrepreneurs, researchers and government;
- Increase awareness of local technology startups and their offerings;
- Develop and implement programs that support the successful launch and maturation of Saskatchewan technology startups;
- Develop and implement policies that create the conditions for technology entrepreneurships and growth in Saskatchewan; and
- Support the development of a close-knit community of technology developers, companies and academics in Saskatchewan.

Year at a Glance

$9.13M invested in medical and infectious disease research

$3.2M invested in oil and gas and mining research and development

11 new cutting edge research and development projects funded

27 new technology startups identified in Saskatchewan

Progress in 2016-17

Saskatchewan's Comprehensive Innovation Agenda

As the Government of Saskatchewan's primary agency responsible for the province's investments in innovation, IS made significant progress in 2016-17 on the two major areas it oversees:

Scientific Research and Development: In terms of scientific research and development, IS provides funding and board directorship to research institutes and programs. These include:

- Canadian Light Source (CLS);
- Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac);
- Innovation and Science Fund (ISF);
- Saskatchewan Health Research Foundation (SHRF);
- Sylvia Fedoruk Canadian Centre for Nuclear Innovation (Fedoruk Centre);
- International Minerals Innovation Institute (IMII); and
- Petroleum Technology Research Centre (PTRC).

For the past year, IS has focused on facilitating increased communication and collaboration between Saskatchewan's research organizations. This has resulted in scientific research and development that is coordinated and aligned with provincial priorities. IS will continue to leverage its existing relationships with research institutes and industries to ensure provincial innovation investments are generating both economic and social benefits for Saskatchewan.

Advanced Technology Sector: Recognizing the growth potential of the advanced technology sector, as well as the need for economic diversification, IS has also committed to supporting the province's technology startups and entrepreneurs. In addition to providing financial resources to help solve industry challenges through the Saskatchewan Advantage Innovation Fund (SAIF), IS has made significant progress toward establishing the province's first technology startup incubator: Co.Labs. Knowledge and service-based industries will be a key to diversifying Saskatchewan's economy, and IS is committed to supporting this direction through continued strategic investments in the advanced technology sector.

Saskatchewan's Scientific Research Institutes and Programs

Canadian Light Source (CLS)

Located at the University of Saskatchewan, the Canadian Light Source (CLS) is Canada's only synchrotron light source facility and one of the nation's largest scientific investments in the past 30 years. In 2016-17, the CLS made efforts in aligning its research agenda with provincial research and development priorities, by committing to research that addresses Saskatchewan's core economic drivers—oil and gas, mining and agriculture. The CLS has increased collaboration with other research institutes in the province on new research and development projects, including the following:

- PTRC: The imaging of heavy oil systems and the analysis of the dynamics of foamy oil formations;
- The University of Saskatchewan (U of S): Mine reclamation in northern Alberta oil sands; and
- The U of S and the Northern Alberta Institute of Technology: Innovative oil spill cleanup.

By engaging and working with stakeholders in Saskatchewan's innovation ecosystem, such as universities, researchers and industries, CLS is leading the way in scientific and innovation convergence in the province. Having already achieved the highest industrial utilization of all synchrotrons in the world, the CLS plans to reach 25 per cent industrial use and to increase the number of beamlines to 21 by the end of 2017.

Photo Credit: Canadian Light Source

CLS at a Glance

250+ employees

15 beamlines in operation

10%+ industry usage

900+ individual users

Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac)

Founded in 1975, VIDO is a world-class infectious disease and vaccine research centre located at and owned by the University of Saskatchewan. In 2011, InterVac was officially opened, providing the centre with a containment Level 3 laboratory, capable of handling large animals. The facility focuses its research on preventing the spread of animal and human diseases, as well as on vaccine development. VIDO-InterVac works closely with the university's Health Science colleges and the College of Agriculture and Bioresources—to combine expertise in combating infectious diseases. In 2016-17, its researchers achieved several major milestones, including:

- The development of a prototype vaccine for the Porcine Epidemic Diarrhea Virus (PEDv);
- Becoming the first in the world to use the swine model to study the Zika virus infection; and
- Early laboratory testing of a prototype bovine tuberculosis vaccine.

Photo Credit: VIDO-InterVac

VIDO-InterVac at a Glance

42 years of history and expertise

96 Canadian/United States patents awarded since 1983

250K square-foot facility approved to handle serious diseases

Innovation and Science Fund (ISF)

Since the beginning of the 2015-16 fiscal year, IS has been responsible for managing and administering the Innovation and Science Fund (ISF). The fund provides matching or contributing funds to research projects proposed by universities, colleges and research institutes that are receiving funding from federal ministries and agencies. The ISF is critical to helping the province's post-secondary institutions remain competitive to receive federal grants and retain highly qualified personnel. In 2016-17, major research projects funded included:

- Global food security: Designing crops to tackle food security issues;
- Compute Canada: Nationwide network of research supercomputers; and
- SuperDARN: Radars that monitor electronics-disrupting space weather.

The ISF represents the province's continued support and commitment towards Saskatchewan's big science facilities and research endeavours.

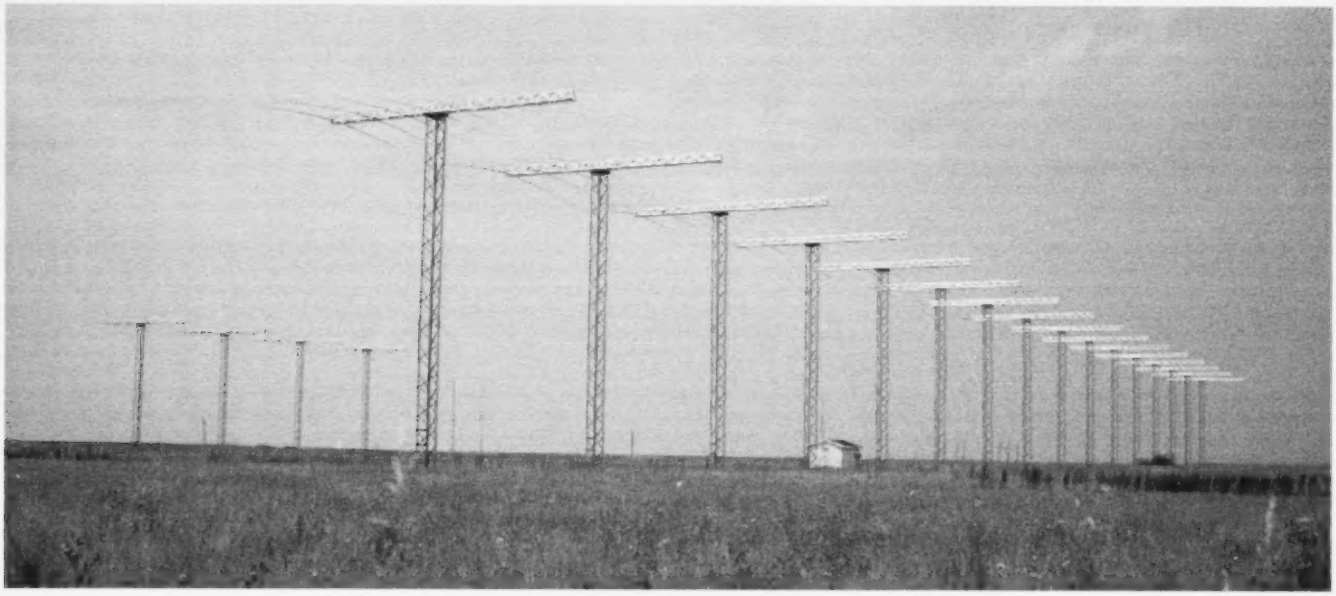


Photo Credit: SuperDARN Canada

Highlights of projects funded in 2016-17

$800K for global food security research

$500K for cancer research at the CLS

$140K for genomics research

Saskatchewan Health Research Foundation (SHRF)

Founded in 1979, the Saskatchewan Health Research Foundation (SHRF) helps advance health research for Saskatchewan by making strategic investments in high-impact and peer-reviewed research that is relevant to the province's health care. A majority of provincial health research grants are provided through SHRF—for research and innovation projects at Saskatchewan's two universities, colleges and other provincial institutions.

Research projects funded by SHRF include the following:

- Investigating tuberculosis transmission;
- Health care accessibility for HIV-positive patients;
- Multiple sclerosis (MS) incidence and prevalence in Saskatchewan; and
- Improving emergency room wait times and response.

In 2016-17, SHRF participated in announcing Saskatchewan's inaugural Research Chair in Multiple Sclerosis (MS), an important initiative to tackle one of the province's most devastating health issues.

Photo Credit: SHRF | In Photo: Dr. Marta Hondzo

SHRF at a Glance

64 new health research projects funded in 2016-17

$671K invested in MS research

$536K invested in Aboriginal health research

$452K invested in cancer research

$270K invested in tuberculosis research

Sylvia Fedoruk Canadian Centre for Nuclear Innovation (Fedoruk Centre)

The Sylvia Fedoruk Canadian Centre for Nuclear Innovation (Fedoruk Centre) was established in 2012, as part of Saskatchewan's Integrated Nuclear Research and Development Strategy. Since then, the centre has granted over $4 million for 28 research projects in the areas of nuclear medicine, material science and small modular reactors. In addition to funding nuclear research, the centre also operates the Saskatchewan Centre for Cyclotron Sciences (SCCS), which began producing medical isotopes in June 2016 for use at the Positron Emission Tomography – Computerized Tomography (PET/CT) scanner at the Royal University Hospital in Saskatoon. In less than a month, the PET/CT scanner provided medical scans for more than 150 patients with the locally produced isotope supply. It can now serve up to 15 patients a day, significantly reducing wait times, delays and cancellations.

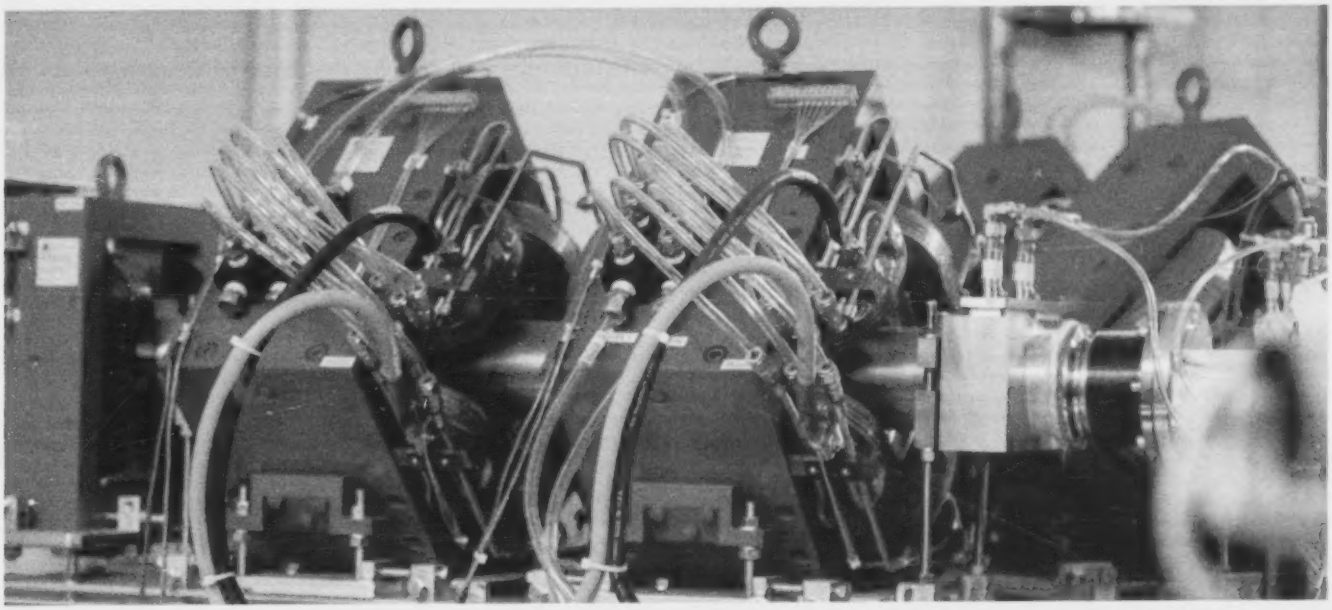


Photo credit: Fedoruk Centre

Fedoruk Centre at a Glance

28 nuclear research projects funded since 2012

$4M in research funding granted since 2012

165+ publications resulted from funded research projects

International Minerals Innovation Institute (IMII)

The International Minerals Innovation Institute (IMII) is a mining research and education organization jointly funded by industry and government. The institute focuses on initiating industry-driven research and development projects to address a wide variety of mining issues, from exploration and minerals processing to health and safety and environmental sustainability. The IMII has made investments in capacity building by establishing training programs at the University of Saskatchewan, Northlands College and Saskatchewan Polytechnic.

Currently, the institute has seven funding members from industry, as well as 20 other members that represent provincial education and research institutions:

- Funding members: Agrium Inc., BHP Billiton, Cameco Corporation, K+S Potash Canada, the Mosaic Company, North Rim Exploration Ltd., and PotashCorp;
- Government members: Innovation Saskatchewan and the Ministry of Advanced Education; and
- Non-funding members: University of Saskatchewan, University of Regina, Saskatchewan Polytechnic, First Nations University of Canada, regional colleges and government-owned research institutions.

In 2016-17, IMII continued to focus on initiating new collaborative research and development projects between industry and academia. In March 2017, IMII collaborated with the University of Saskatchewan's Innovation Enterprise to host *AIMDay Minerals 2017*. The event brought industry partners and academics together in an innovative approach to solving industry challenges.

Photo Credit: Potash Corp of Saskatchewan

IMII at a Glance

27 members representing industry, education and government

$13.6M in total funding over last 5 years

$7.8M of total funding above contributed by industry members

Petroleum Technology Research Centre (PTRC)

The PTRC was jointly established in 1998 by Natural Resources Canada, the Government of Saskatchewan, the University of Regina and the Saskatchewan Research Council. As a non-profit research and development institute, it is responsible for initiating and managing multiple major enhanced oil recovery and carbon storage research and development projects.

The PTRC has since played an important role in improving the province's oil recovery rates and reducing its greenhouse gas emissions. In 2016-17, the centre made significant progress in its carbon storage project, Aquistore, by signing an agreement with Australia's CO_2 Commonwealth Research Centre to collaborate on carbon management technologies. As well, Aquistore surpassed 100,000 tonnes of stored CO_2 in the first quarter of 2017.

PTRC at a Glance

100,000+ tonnes of carbon stored at the Aquistore site

85% of Saskatchewan's heavy oil produced by three of PTRC's members

$500K of new investments in light/tight oil extraction R&D

Saskatchewan Advantage Innovation Fund (SAIF)

The Saskatchewan Advantage Innovation Fund (SAIF) is a fund managed and administered by IS to solve industry-specific challenges and benefit the business environment of the sector as a whole. Specifically, it supports applied research and development projects seeking to commercialize novel technologies to improve the province's core economic sectors (agriculture, oil and gas and minerals) and/or their industrial ecosystems (industries that supply products, services and technologies to, or process outputs from, the core sectors).

SAIF at a Glance

21 cutting-edge research projects funded since 2011

11 innovative enhanced oil recovery projects funded

$21M industry and other funding sources leveraged

10x estimated return on investment from economic impacts

In 2016-17, IS made strategic investments through SAIF in six new research and development projects listed below:

Enhanced Oil Recovery (EOR)

The oil and gas industry represents one of Saskatchewan's core economic sectors. Unfortunately, oil recovery rates have been declining steadily over the years, as 87 per cent of the province's original oil in place cannot be recovered using conventional extraction techniques. Coupled with low commodity prices, there is considerable need within the industry to lower costs by applying innovative technologies on existing infrastructure. Through SAIF, IS has made significant investments into research and development projects to develop new enhanced oil recovery (EOR) techniques. These innovative new technologies will allow the oil and gas industry to unlock previously inaccessible oil reserves, utilize existing infrastructure and reduce costs.

In 2016-17, SAIF supported four new EOR projects:

- New waterflooding technique for increased production in Saskatchewan's Viking reservoir;
- Field partial upgrading process that will reduce transportation costs and use of diluents; and
- Two separate projects investigating the injection of steam and combustion gases for EOR.

Genomics Tool for Greener Mine Sites

In recent years, microbiologists and geologists have begun to understand more about how indigenous microbial communities at mine sites are responsible for "natural" geological processes like acid rock drainage. These processes can affect how operators design their mine sites, operations and remediation processes. However, the characteristics and behaviour of these microbial communities are not well understood. In 2016-17, IS invested in a research and development project, led by Contango Strategies, to develop a second-generation genomics testing tool to better profile these microorganisms residing in mine sites. This will allow the mining industry to understand the effects of microbes on mining activities, as well as to utilize them for site remediation purposes.

Zika Virus Vaccine Research

In 2016, the World Health Organization declared the outbreak of the Zika virus a public health emergency as it spread across the Americas at an alarming pace. Transmitted through mosquitoes or sexual contact with infected individuals, the virus was known to be causing microcephaly, the underdevelopment of brains in babies born to infected mothers. Together with Genome Canada, the Public Health Agency of Canada and VIDO-InterVac, IS contributed funding through SAIF on a Zika research and development project being executed at VIDO-InterVac. The research project will be the first in the world to use a swine model to study Zika infection and test new therapies and vaccines for prevention.

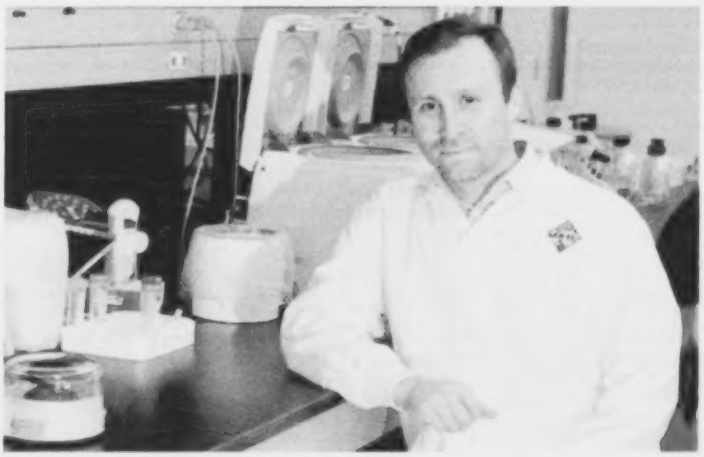


Photo Credit: VIDO-InterVac | In Photo: Dr. Volodymyr Kamyshatskyi

Co.Labs Technology Startup Incubator

The advanced technology sector is one of Saskatchewan's fastest growing industries. Many successful Saskatchewan startups like Solido, Vendasta and 7Shifts began life as simple ideas. These ideas were nurtured through the hard work and perseverance of entrepreneurs to become flourishing businesses.

Not only are innovative startups producing hundreds of new employment opportunities in the province, they are also helping diversify Saskatchewan's economy. To support this emergent sector, IS is investing in the establishment of the province's first technology startup incubator: Co.Labs. Located in Saskatoon's Innovation Place, Co.Labs will support technology startups and entrepreneurs by providing office space, mentorship, business services and training programs. It will help technology entrepreneurs refine their ideas and build their businesses, and will become an important source of support for a fast-growing community of innovative entrepreneurs in Saskatchewan.

15 companies in pilot intake

25 startups anticipated in the fall 2017 intake

50 founders anticipated in the fall 2017 intake

co.labs

Board and Committee Representation

IS senior and executive staff are on the following boards of directors to convey the Government of Saskatchewan's innovation priorities and the best interests of the Saskatchewan public:

- Canadian Light Source;
- Co.Labs;
- International Minerals Innovation Institute;
- Petroleum Technology Research Centre;
- Saskatchewan Health Research Foundation;
- Sylvia Fedoruk Canadian Centre for Nuclear Innovation;
- Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac); and
- Centre for the Study of Innovation Policy.

Innovation Success Stories

By supporting and advancing Saskatchewan's innovation agenda, IS seeks to provide tangible economic and social benefits for the people of Saskatchewan. The following are some of this year's success stories on improving the lives of the people of Saskatchewan through innovation at IS-funded institutes and programs:

AIMDay Minerals 2017

On March 22, 2017, Innovation Enterprise at the University of Saskatchewan and the International Minerals Innovation Institute (IMII) jointly hosted *AIMDay Minerals 2017*, marking the first time AIMDay was ever held in North America. The event focused on questions submitted by mining companies, bringing together academics and industry partners in multiple hour-long intensive sessions to brainstorm solutions to industry challenges. AIMDay was attended by academics from the universities of Saskatchewan and Regina, Saskatchewan Polytechnic and representatives from Agrium, Cameco Corporation, K+S Potash Canada, PotashCorp and the Mosaic Company. The sessions resulted in 17 joint industry-academic proposals being selected to receive initial grants for further investigation.

Reducing Wait Times for Medical Scans

On June 6, 2016, the Saskatchewan Centre for Cyclotron Sciences (SCCS), managed by the Fedoruk Centre, began supplying medical radioisotopes to the PET/CT scanner at Royal University Hospital (RUH). In the past, RUH had to rely on isotopes produced by a research nuclear reactor located at McMaster University in Hamilton, Ontario. Having to ship isotopes from Ontario created significant logistical issues and constraints as these isotopes have a short half-life. Located at the University of Saskatchewan, the cyclotron is capable of producing a steady supply of radioisotopes, without the use of a nuclear reactor. This will significantly reduce patient wait times, delays and cancellations—enabling more timely diagnoses and treatment.

Photo Credit: Fedoruk Centre

Vaccine Development for Infectious Diseases

Infectious diseases are one of the most serious threats towards human and animal health. As emergent diseases become resistant to existing drugs and treatment methods, new and innovative vaccines are needed to combat new disease-causing bacteria and viruses. In 2016, researchers at VIDO-InterVac developed a prototype vaccine targeted against the Porcine Epidemic Diarrhea Virus (PEDv), which has decimated the North American pork industry, causing over $400 million in lost income. This vaccine could help protect pork producers in Saskatchewan against losses from this devastating virus. In addition to PEDv research, the organization announced in early 2017 that it will begin field testing its prototype bovine tuberculosis vaccine, helping Saskatchewan cattle farmers stop the spread of yet another deadly animal disease.

Photo Credit: VIDO InterVac

Understanding Seniors' Health Needs

As Saskatchewan's population continues to age steadily, health issues affecting older adults are increasingly becoming a public health concern and represent a significant cost to the health care system.

In response, the Saskatchewan Health Research Foundation (SHRF) released a report to highlight the importance of ongoing research and to raise awareness of the need for continued work to improve seniors' health.

Much of the ongoing research projects funded by SHRF are already having tangible impacts on the lives of seniors. For example, a fall prevention program developed by a SHRF-funded project has helped many participating seniors improve to a point where they can live independently without the need for home care services.

Photo Credit: SHRF

Co.Labs: First Class

Following significant groundwork in 2016-17, the province's first startup incubator, Saskatchewan Collaborates Inc. (Co.Labs), began its pilot operations in May 2017, and welcomed a beta group of technology entrepreneurs and startup companies. These young businesses will be provided working spaces, business services and most importantly, mentorship from experienced startup founders. By facilitating a collaborative working environment and reducing the risk and cost of failure, Co.Labs will encourage entrepreneurs to try new innovative technologies and turn them into successful businesses.

Technology startup founders' event

Federal Grants for Saskatchewan's Big Science Facilities

The Government of Saskatchewan is committed to supporting the province's major scientific endeavours and infrastructure through IS's Innovation and Science Fund. Provincial funding is vital for these major research and development facilities to compete for matching federal grants and funding. In January 2017, the federal government awarded the Canadian Light Source, InterVac and SuperDARN a total of $69 million over the next three to five years, to support their operations. Continued federal support for Saskatchewan's "big science" facilities represents the value this province's research brings to the national level.

Imaging Plants

In January 2017, researchers in Saskatchewan unveiled the PhytoPET, a PET scanner designed for plant imaging, located at the University of Regina. This project was funded as part of the Fedoruk Centre's investment towards nuclear imaging technology. The device will allow researchers to study plants at the molecular level, to better understand biological processes and changes in behaviour under various environmental conditions. The PhytoPET will be an invaluable tool for Saskatchewan as the agricultural industry begins to harness genomics and embrace "digital agriculture" to increase yield and efficiency.

Tackling Brain Trauma

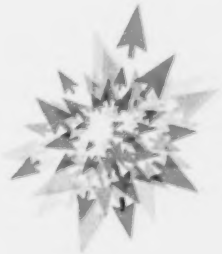
Concussions are a serious health concern for many athletes competing in contact sports. Early diagnosis of brain traumas can be difficult, as symptoms are not always present. Together with the Centre for Drug Research and Development (CDRD), IS has provided funding towards the testing of protein biomarkers that will be developed into a fast, effective and portable test for traumatic brain injuries. Such a test can be administered by a team physician before paramedics can arrive. The project is now testing a second protein biomarker. Ongoing clinical trials are showing promising results.

Taking on Multiple Sclerosis

Currently, Saskatchewan has one of the highest incidence rates of multiple sclerosis (MS) in Canada. However, little is known why MS rates are at such alarming levels in Saskatchewan and Canada in general. In January 2017, the SHRF participated in announcing the inaugural holder of the Saskatchewan Research Chair of Clinical MS Research. The SHRF's funding contribution towards this research chair will help the medical community better understand MS prevalence, develop effective treatment methods and ultimately a cure.

Supercomputers in Research

Advanced computing power is a critical tool for the work of many researchers in Saskatchewan. Unfortunately, it is neither feasible nor efficient to maintain supercomputers on the campus of many universities and colleges. Compute Canada meets researcher demand for supercomputing power by allowing remote access to its Advanced Research Computing infrastructure located all across Canada. In 2016-17 IS contributed Saskatchewan's share of funding towards Compute Canada's 2.0 project to allow researchers in this province to access this invaluable tool for research.



compute canada | calcul canada

2016-17 Financial Overview

Innovation Saskatchewan

Report of Management

For the Twelve Month Period Ended March 31, 2017

The accompanying financial statements are the responsibility of the management of Innovation Saskatchewan. They have been prepared in accordance with generally accepted accounting principles for the public sector, using management's best estimates and judgments, where appropriate. Management is responsible for the reliability and integrity of the financial statements, the notes to the financial statements and other financial information contained in this report. Management is also responsible for maintaining a system of internal controls, policies and procedures designed to provide reasonable assurance that assets are safeguarded and that accounting systems provide timely, accurate and reliable financial information.

The Innovation Saskatchewan Board of Directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal control. The Office of the Provincial Auditor has audited the agency's financial statements in accordance with generally accepted auditing standards, and their report follows.

Wes Jickling
Chief Executive Officer
Innovation Saskatchewan

July 19, 2017

Innovation Saskatchewan

Financial Statements

For the Year Ended March 31, 2017

PROVINCIAL AUDITOR
of Saskatchewan

INDEPENDENT AUDITOR'S REPORT

To: The Members of the Legislative Assembly of Saskatchewan

I have audited the accompanying financial statements of Innovation Saskatchewan, which comprise the statement of financial position as at March 31, 2017, and the statements of operations and accumulated surplus, change in net financial assets, and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards for Treasury Board's approval, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

In my opinion, the financial statements present fairly, in all material respects, the financial position of Innovation Saskatchewan as at March 31, 2017, and the results of its operations, changes in its net financial assets, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Judy Ferguson

Regina, Saskatchewan
July 6, 2017

Judy Ferguson, FCPA, FCA
Provincial Auditor

1500 Chateau Tower · 1920 Broad Street · Regina, Saskatchewan · S4P 3V2
t 306.787.6398 *f* 306.787.6383 *e* info@auditor.sk.ca
www.auditor.sk.ca

Statement 1

Innovation Saskatchewan
Statement of Financial Position
As at March 31

	(thousands of dollars)	
Financial Assets	**2017**	**2016**
Due from General Revenue Fund (Note 3)	$ 9,817	$ 7,830
Accounts Receivable	17	25
	9,834	7,855
Liabilities		
Accounts Payable and Accrued Liabilities	2,662	987
Net Financial Assets (Statement 3)	7,172	6,868
Non-financial Assets		
Prepaid Expenses	4	4
Accumulated Surplus (Statement 2)	$ 7,176	$ 6,872

Contractual Obligations (Note 5 and 8)
Designated Assets (Note 9)
(See accompanying notes to financial statements)

Statement 2

Innovation Saskatchewan
Statement of Operations and Accumulated Surplus
for the Year Ended March 31

		(thousands of dollars)	
	Budget (Note 4)	***2017*** **Actual**	***2016*** **Actual**
Revenue			
Transfer from the General Revenue Fund	$ 29,400	$ 29,400	$ 30,510
Interest Earned from the General Revenue Fund		88	106
Other		46	89
	29,400	29,534	30,705
Expenses (Note 7)			
Administration	2,353	2,123	1,935
Program Grants			
Saskatchewan Advantage Innovation Fund (Note 9)	886	1,038	1,318
Petroleum Technology Research Centre	2,000	2,500	2,000
Innovation and Science Fund (Note 9)	4,000	2,397	1,599
International Minerals and Innovation Institute	1,200	1,200	1,000
Sylvia Fedoruk Centre	3,600	4,161	5,425
Canadian Light Source	4,100	4,550	4,100
InterVac	2,131	2,131	2,131
Vaccine and Infectious Disease Organization	3,500	3,500	3,500
Saskatchewan Health Research Foundation	5,630	5,630	5,630
	29,400	29,230	28,638
Annual Surplus	$ -	304	2,067
Accumulated Surplus, Beginning of Year		6,872	4,805
Accumulated Surplus, End of Year (Statement 1)		$ 7,176	$ 6,872

(See accompanying notes to financial statements)

Statement 3

Innovation Saskatchewan
Statement of Change in Net Financial Assets
for the Year Ended March 31

	(thousands of dollars) 2017	2016
Annual Surplus	$ 304	$ 2,067
Decrease in Prepaid Expenses	-	4
Increase in Net Financial Assets	304	2,071
Net Financial Assets, Beginning of Year	6,868	4,797
Net Financial Assets, End of Year (Statement 1)	$ 7,172	$ 6,868

(See accompanying notes to financial statements)

Statement 4

Innovation Saskatchewan
Statement of Cash Flows
for the Year Ended March 31

	(thousands of dollars)	
Operating Activities	**2017**	**2016**
Cash Receipts from General Revenue Fund	29,400	30,510
Cash Receipts from Other Operating Activity	46	89
Cash Paid to Suppliers and Employees	(27,556)	(27,992)
Cash Provided by Operating Activities	1,890	2,607
Investing Activities		
Cash Receipts from Interest	97	94
Cash Provided by Investing Activities	97	94
Increase in Due From General Revenue Fund	1,987	2,701
Due from General Revenue Fund, Beginning of Year	7,830	5,129
Due from General Revenue Fund, End of Year	$ 9,817	$ 7,830

(See accompanying notes to financial statements)

Innovation Saskatchewan
Notes to the Financial Statements
for the Year ended March 31, 2017

1. Status of Innovation Saskatchewan

Innovation Saskatchewan was established under the provisions of *The Innovation Saskatchewan Act* on November 2, 2009.

Innovation Saskatchewan is the central agency of the Government of Saskatchewan with responsibility for implementing Saskatchewan's innovation priorities. Innovation Saskatchewan coordinates the strategic direction of the government's research and development and science and technology expenditures; provides advice on science and technology policy; coordinates the establishment and maintenance of science, research and development infrastructure; and provides advice and recommendations on research, development, demonstration, and the commercialization of new technologies and innovative processes in Saskatchewan. Innovation Saskatchewan is a corporate body eligible to receive monies primarily appropriated by the legislature for these purposes.

2. Significant Accounting Policies

Pursuant to standards established by the Public Sector Accounting Board, Innovation Saskatchewan is classified as an *"other government organization"*. These financial statements are prepared using Canadian Public Sector Accounting Standards published by the Chartered Professional Accountants of Canada and reflect the following significant accounting principles. Innovation Saskatchewan did not have any re-measurement gains and losses, therefore a statement of re-measurement gains and losses is not provided.

a) Revenue

Revenue is recognized in the period in which the transactions or events occurred that give rise to the revenue. Transfers from the General Revenue Fund are unrestricted in nature and are recognized when authorized and any eligibility criteria are met.

b) Expenses

Expenses represent the cost of resources consumed during the year for operations and grants made to third-party organizations. Grants are recognized as expenses in the period during which the transfer is authorized and eligibility criteria are met.

c) Non-financial Assets

Prepaid expenses are non-financial assets that are accounted for as assets because they can be used to provide services in future periods. These assets do not normally provide resources to discharge existing liabilities unless they are sold.

d) Measurement Uncertainty

The preparation of financial statements in accordance with Canadian Public Sector Accounting Standards requires management to make estimates and assumptions that affect the reported amount of financial assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. These estimates are reviewed periodically, and, as adjustments become necessary, they are reported in the Statement of Operations and Accumulated Surplus in the period in which they become known.

3. Due from the General Revenue Fund

Innovation Saskatchewan's bank account is included in the Consolidated Offset Bank Concentration arrangement for the Government of Saskatchewan. Interest is paid on a quarterly basis at the government's 30-day average interest rate. The average rate for 2016-17 was 0.54% (2015-16 was 0.60%). Interest earned during the year was $88 thousand (2015-16 – $106 thousand).

4. Budget Approval

The 2016-17 budget submission to Saskatchewan Finance for 2016-17 was approved by the Innovation Saskatchewan Board on July 8, 2016.

5. Related Parties

These financial statements include routine transactions with related parties. Innovation Saskatchewan is related to all Saskatchewan Crown agencies such as ministries, corporations, boards and commissions under the common control of the Government of Saskatchewan. Also, Innovation Saskatchewan is related to non-Crown Corporations and enterprises that the government jointly controls or significantly influences.

Related party transactions to March 31, 2017 include the following:

	(thousands of dollars)	
Expense	2016-17	2015-16
Ministry of Central Services	$ 1	-
University of Saskatchewan	7,886	7,693
SaskTel	18	17
Sylvia Fedoruk Canadian Centre for Nuclear Innovation - Grant	4,000	5,000
Saskatchewan Health Research Foundation	5,630	5,630
Saskatchewan Research Council	164	50
University of Regina	360	100
Innovation Place	154	145
Ministry of the Economy	147	156
The Canadian Light Source	4,550	4,100
Accounts Receivable	$ 17	$ 25
Accounts Payable	$ 959	$ 723
Other Revenue	$ 26	$ 15

	(thousands of dollars)	
Contractual Obligations	Leases	Programming
2017-18	150	18,527
2018-19	150	17,627
2019-20	150	16,129
2020-21	-	6,398
2021-22	-	-
Total	$ 450	$ 58,681

Other transactions with related parties and amounts due to/from them are described separately in the financial statements and the notes thereto.

Routine operating transactions with related parties are recorded at the rates charged by those organizations and are settled on normal trade terms. In addition, Innovation Saskatchewan pays Provincial Sales Tax to the Saskatchewan Ministry of Finance on all its taxable purchases.

6. Financial Instruments

Innovation Saskatchewan's financial instruments include: Due from the General Revenue Fund, Accounts Receivable, Accounts Payable and Accrued Liabilities. The carrying amount of these instruments approximates fair value due to their short-term nature. These instruments have no material interest, credit, liquidity, or market risks.

7. Expense by Object

(thousands of dollars)

Expenses	March 31, 2017	March 31, 2016
Goods and Services	$ 729	$ 618
Grants and Transfers	27,248	26,752
Pension and Benefits	97	135
Salaries	1,109	1,092
Travel	47	41
	$ 29,230	$ 28,638

8. Contractual Obligations

Innovation Saskatchewan has non-related party programming and operational obligations in future years.

(thousands of dollars)

	Programming	Operational
2017-18	$ 732	$ 127
2018-19	325	36
2019-20	-	-
2020-21	-	-
2021-22	-	-
	$ 1,057	$ 163

9. Designated Assets

Innovation Saskatchewan is holding $6.372M as designated assets to be spent as follows:

	(thousands of dollars)	
Designated Assets	**March 31, 2017**	**March 31, 2016**
Nuclear Strategy Program	$ 158	$ 719
ISF	4,004	2,401
SAIF	2,210	2,362
	$ 6,372	$5,482

Innovation Saskatchewan maintains two internal funds called the Saskatchewan Advantage Innovation Fund (SAIF) and the Innovation and Science Fund (ISF). SAIF provides support for innovation activities in areas such as research and development, demonstration, commercialization and education consistent with the Innovation Saskatchewan mandate while ISF provides support for similar activities in science. Decisions on projects funded by SAIF and ISF are based on a rigorous project evaluation criteria used to vet all projects and are recommended to the Innovation Saskatchewan Board of Directors for approval.

Due to delays in planning and negotiations, Innovation Saskatchewan has retained funds for its Nuclear Strategy Program for purposes of supporting the construction of the Saskatchewan Centre for Innovation in Cyclotron Science (SCI-CS) cyclotron facility and associated nuclear substances laboratory, part of the Sylvia Fedoruk Canadian Centre for Nuclear Innovation and for joint research projects undertaken under the auspices of the Memorandums of Understanding with Hitachi, Ltd. These designated assets are included in the Due from General Revenue Fund on the Statement of Financial Position.

10. Pension Costs

The employees of Innovation Saskatchewan participate in the Public Employees' Pension Plan defined contribution plan. Pension costs of $81 thousand (2015-16 - $78 thousand) are included in pension and benefits expense and comprise the cost of employer contributions for current service of employees during the year. Employer contribution levels are applied at 7.25% of salary. Innovation Saskatchewan's liability is limited to the required contributions.

For More Information

Innovation Saskatchewan
343-111 Research Drive
Saskatoon, SK S7N 3R2

Tel: (306) 933-7205
Fax: (306) 933-5320

www.innovationsask.ca